

List of Current Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 - 11 (Cancelled).

12. (New) An apparatus for determining and/or monitoring at least one physical or chemical process variable of a medium, comprising:

at least one mechanically oscillatable unit which includes a tube and an internal oscillator;

a securement unit connected to said tube, with an end turned away from the process, and an end turned toward the process is embodied as a free end; said tube surrounds said inner oscillator; and

at least one driving/receiving unit, said driving/receiving unit excites said at least one mechanically oscillatable unit to oscillate, respectively, wherein:

said internal oscillator is secured to said free end of said tube and has an end turned toward the process;

said driving/receiving unit receives the oscillations of said at least one mechanically oscillatable unit; and

said internal oscillator has at least one groove/neck, which determines at least the oscillation frequency of said at least one mechanically oscillatable unit.

13. (New) The apparatus as claimed in claim 12, wherein:

said groove/neck is located in the direction of the end of said internal oscillator turned toward the process.

14. (New) The apparatus as claimed in claim 12, wherein:

an additional weight is provided in said securement unit.

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15. (New) The apparatus as claimed in claim 12, wherein:
said tube and/or said internal oscillator have/has one of: a round, elliptical,
square and polygonal cross section.

16. (New) The apparatus as claimed in claim 12, wherein:
said internal oscillator is one of: hollow, solid and partially hollow and partially
solid.

17. (New) The apparatus as claimed in claim 12, wherein:
only a single piezo unit in said at least one driving/receiving unit is provided,
which serves as a driving, and as a receiving, unit.

18. (New) The apparatus as claimed in claim 12, wherein:
characterized in that,
at least two piezo units in said at least one driving/receiving unit are provided,
with least one piezo unit serving as driving unit and at least one piezo unit serving as
receiving unit, said at least tow piezo units being piezo units positioned at the same
position.

19. (New) The apparatus as claimed in claim 17, wherein:
said piezo unit is a piezoelectric element, which is composed of at least two
segments, which are polarized in mutually opposite directions, said polarization
directions lie parallel to an axis of rotation of said at least one mechanically oscillatable
unit.

20. (New) The apparatus as claimed in claim 12, wherein:
said at least one driving/receiving unit is positioned between end of said internal
oscillator turned toward the process and the end of said tube turned toward the
process.

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21. (New) The apparatus as claimed in claim 12, wherein :
said internal oscillator has at least a second groove/neck.
22. (New) The apparatus as claimed in claim 21, wherein:
said at least one driving/receiving unit is positioned between said first
groove/neck and said second groove/neck.